

Water-Data Report 2008

08159200 Colorado River at Bastrop, TX

Lower Colorado Basin
Lower Colorado-Cummins Subbasin

LOCATION.--Lat 30°06'16", long 97°19'09" referenced to North American Datum of 1927, Bastrop County, TX, Hydrologic Unit 12090301, on the left bank on the downstream side of State Highway 71 bridge on Water Street, at Bastrop, 0.3 mi upstream from Gills Creek, 1.2 mi downstream from Piney Creek, and at mile 236.6.

DRAINAGE AREA.--39,979 mi² of which 11,403 mi² probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Mar. 1960 to current year. Oct. 1973 to Sept. 1975, daily discharges estimated by hydrographic comparison with Colorado River at Austin (station 08158000) and Colorado River near Smithville (station 08159500).

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: Jan. 1968 to Aug. 1994.

BIOCHEMICAL DATA: Feb. 1968 to Sept. 1994.

RADIOCHEMICAL DATA: Jan. 1981 to July 1981.

SPECIFIC CONDUCTANCE: Oct. 1984 to Sept. 1994.

WATER TEMPERATURE: Oct. 1984 to Sept. 1994.

PH: Oct. 1984 to Sept. 1994.

DISSOLVED OXYGEN: Oct. 1984 to Sept. 1994.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 307.38 ft above NGVD of 1929. Prior to Sept. 30, 1973, and Oct. 1, 1975 to Oct. 28, 1986, 400 ft upstream from present site at same datum. Radio and satellite telemeter at station.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage-discharge relation at low stages. U.S. Geological Survey maintains stage-discharge relation at medium to high stages, computes, and publishes streamflow record.

REMARKS.--Records good. Since installation of gage in 1960, at least 10% of contributing drainage area has been regulated. There are many diversions above station for irrigation and municipal supply. The city of Austin diverts water into Decker Lake (by pumpage) upstream from this station. The Lower Colorado River Authority also diverts water from the Colorado into Lake Bastrop (by pumpage) upstream from this station. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1845, 60.3 ft July 7 or 8, 1869. Flood of June 16, 1935, reached a stage of 57.0 ft, and flood of Dec. 4, 1913, reached a stage of 53.3 ft, from information by local resident.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,100	529	486	433	468	664	1,200	1,270	1,830	1,910	1,060	1,140
2	1,070	480	454	429	554	682	1,210	1,160	1,820	1,860	1,090	1,230
3	982	479	448	508	564	695	1,200	1,170	1,780	1,890	1,100	1,150
4	941	476	434	538	627	852	1,370	1,370	1,610	1,850	1,070	1,170
5	903	458	423	540	640	839	1,610	1,170	1,960	1,770	1,090	1,240
6	835	466	493	549	586	767	1,660	1,300	1,970	1,790	1,100	1,220
7	774	466	488	549	716	697	1,520	1,240	2,020	1,770	1,090	1,260
8	771	475	477	572	566	777	1,540	1,250	1,970	1,830	1,050	1,650
9	771	453	462	587	591	717	1,580	1,300	1,960	1,840	1,110	1,410
10	746	459	450	628	652	873	1,570	1,280	1,980	1,630	1,080	1,180
11	734	416	496	597	567	1,680	1,600	1,330	1,960	1,510	1,040	1,200
12	738	484	449	552	710	1,230	1,530	1,380	1,970	1,270	1,050	866
13	689	418	490	551	660	916	1,250	1,380	1,970	1,180	1,130	586
14	651	464	497	528	672	838	1,030	1,500	1,970	1,160	1,110	854
15	643	420	520	526	666	804	1,180	2,300	1,990	1,240	1,050	1,430
16	644	429	546	531	740	771	1,170	2,160	1,960	1,240	1,080	1,490
17	637	434	507	527	725	780	1,230	1,630	1,980	1,210	1,260	1,440
18	637	510	463	530	782	797	1,310	1,400	1,990	1,160	1,110	1,170
19	619	476	467	539	630	1,070	1,800	1,530	2,070	1,180	1,150	1,140
20	604	470	469	565	549	1,280	1,360	1,430	1,980	1,220	1,370	1,130
21	588	454	469	577	576	891	1,330	1,470	1,960	1,200	1,220	1,120
22	790	436	432	580	680	932	1,320	1,410	1,960	1,200	1,160	1,130
23	1,000	450	421	663	629	845	1,270	1,810	1,970	1,210	1,040	1,120
24	691	443	440	675	645	826	1,090	1,830	1,950	1,190	990	1,140
25	629	596	426	613	631	780	989	1,830	1,950	1,270	990	1,160
26	584	735	425	484	607	795	1,070	1,800	1,940	1,180	1,030	1,140
27	629	711	403	554	603	811	1,450	1,830	1,960	1,120	1,040	1,160
28	662	556	412	515	616	850	2,770	1,790	1,940	1,110	1,080	1,150
29	677	512	411	532	648	1,040	1,520	1,740	1,890	1,130	1,160	1,140
30	492	483	417	420	---	1,160	1,320	1,750	1,870	1,130	1,140	1,130
31	546	---	405	478	---	1,190	---	1,820	---	1,070	1,200	---
Total	22,777	14,638	14,180	16,870	18,300	27,849	42,049	47,630	58,130	43,320	34,240	35,346
Mean	735	488	457	544	631	898	1,402	1,536	1,938	1,397	1,105	1,178
Max	1,100	735	546	675	782	1,680	2,770	2,300	2,070	1,910	1,370	1,650
Min	492	416	403	420	468	664	989	1,160	1,610	1,070	990	586
Ac-ft	45,180	29,030	28,130	33,460	36,300	55,240	83,400	94,470	115,300	85,930	67,920	70,110

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,355	1,509	1,534	1,643	2,036	2,303	2,349	3,192	4,303	3,055	1,893	1,719
Max	6,380	13,010	14,770	17,490	29,140	16,910	11,080	10,420	23,620	19,720	5,051	4,930
(WY)	(1974)	(2005)	(1992)	(1992)	(1992)	(1992)	(1977)	(1975)	(1987)	(2007)	(2007)	(1974)
Min	291	94.6	111	109	138	131	565	1,471	1,489	1,230	1,105	1,003
(WY)	(1965)	(1964)	(1964)	(1964)	(1964)	(1964)	(1962)	(1962)	(1993)	(2006)	(2008)	(1999)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1960 - 2008	
Annual total	1,416,701		375,329			
Annual mean	3,881		1,025		2,241	
Highest annual mean					9,073	
Lowest annual mean					828	
Highest daily mean	33,700	Jul 6	2,770	Apr 28	65,800	Dec 22, 1991
Lowest daily mean	281	Mar 11	403	Dec 27	75	Apr 1, 1964
Annual seven-day minimum	305	Mar 5	414	Dec 25	84	Oct 19, 1964
Maximum peak flow			3,250	Apr 28	79,600	Oct 29, 1960
Maximum peak stage			5.61	Apr 28	37.48	Dec 22, 1991
Annual runoff (ac-ft)	2,810,000		744,500		1,623,000	
10 percent exceeds	9,700		1,830		4,210	
50 percent exceeds	902		1,040		1,490	
90 percent exceeds	420		467		278	

